METHODS

The 1999 Zimbabwe GYTS was a school based cross-sectional survey, which employed a two stage cluster sampling design to produce two representative samples from Harare and Manicaland Regions, which were the purposively selected regions for the survey.
Zimbabwe is divided into 10 administrative regions. Manicaland region is predominantly rural and commercial farming area, and Harare is mainly urban, and is the capital city of Zimbabwe.

Sample Description

Separate samples were drawn for the Harare and Manicaland Regions. For each of the regions, all schools containing Forms 1-3 (private and public) were included in the sampling frame.

The table below shows the total secondary schools and enrolments for the two regions

Region	*# of Secondary*	*Total Enrolments*	*Total Enrolments (Forms 1 – 3)*	*% Forms 1 -3*
Harare	73	99 906	73 005	73.07
Manicaland	251	133 534	104 439	78.21

The number of secondary schools in both Harare and Manicaland represent 21% of all secondary schools in the country, the enrolments 28% and Forms 1 to 3 also 28% of the country's Forms 1 to 3 enrolments.

Within each region a two-stage cluster sample design was used to produce a representative sample of students in these schools. The 1st stage-sampling frame consisted of all schools containing any of the Forms 1, 2 and 3. Schools were selected with the probability proportional to school enrollment size. Fifty-seven schools were selected, twenty-four from Harare and thirty-three from Manicaland.

The 2nd sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All Form 1 to 3 classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey. Number of eligible classes ranged from 3 to 60 in schools sampled and the number of students in a class ranged from 35 to 80.

The Questionnaire

A group of experts on tobacco addiction from the first group of countries selected to undertake GYTS, and staff members of WHO/TFI and UNICEF, wrote the 57 questions of the “core” part of GYTS. In addition, Zimbabwe developed 30 more questions, some general socio-demographic

questions, questions on alcohol consumption and use of other substances (dagga, mbanje and glue). These additional questions were put together by a team of researchers from WHO, Ministry of Health and Child Welfare, UNICEF and Blair Research Institute, the institution contracted to carry out the survey.

Data Collection

Data collection was coordinated by Blair Research Laboratories. Before data collection, trips to the schools were undertaken in order to:

- Obtain permission from headmasters to conduct the surveys
- Obtain number of eligible classes for each school in order to facilitate sampling of classes
- Make logistical arrangements for survey administration
- Obtain information on best possible routes to access schools and also which schools fall on the same route or geographical area

Headmasters were briefed on the objectives of the survey, how the survey was to be administered and the procedures that were to be employed to ensure anonymity & confidentiality for students & school.

During data collection, survey procedures were designed to protect the students' privacy by allowing for anonymous and voluntary participation. The self-administered questionnaire was administered in the classroom. Students recorded their responses directly on an answer sheet that could be scanned by a computer. The questionnaire contained 85 multiple-choice questions and approximately 30 minutes were allowed for completion of the questionnaire.

Data collection was done between the 13th and 24th of September 1999, with Harare completed by the 14th and Manicaland by the 24th. 12 trained enumerators were involved in administering the questionnaire.

Analysis

For the analysis, a weighting factor was applied to each student record to adjust for non-response and the varying probabilities of selection. The programs SUDAAN and Epi-Info were used to compute rates and 95% Confidence Intervals for the estimates. A weight was associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non-response. The weight used for estimation is given by:
W=W1*W2*f1*f2*f3*f4
Where,
W1 = the inverse of the probability of selecting the school
W2 = the inverse of the probability of selecting the classroom within the school

f1 = a school-level non-response adjustment factor calculated by school size category (small, medium, large)
f2 = a class-level non-response adjustment factor calculated for each school
f3 = a student-level non-response adjustment factor calculated by class
f4 = a post stratification adjustment factor calculated by form